

<b>INFORMATION DISCLOSURE STATEMENT</b>	<b>Atty. Docket No.:</b> 235.01550101	<b>Serial No.:</b> 10/591,203
	<b>Applicant(s):</b> MAIER et al.	<b>Confirmation No.:</b> 7327
	<b>Application Filing Date:</b> June 22, 2007	<b>Group:</b> 1645
	Information Disclosure Statement filed: December 22, 2010	

**U.S. PATENT DOCUMENTS**

Examiner Initial	Copy Enclosed	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
		NONE					

**U.S. PATENT APPLICATIONS BY SERIAL NUMBER**

Examiner Initial	Copy Enclosed	Document Number	Filing Date	Name	Class	Subclass
		NONE				

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Copy Enclosed	Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
		NONE						

**OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)**

Examiner Initial	Copy Enclosed	Document Description
	X	Adams et al. 1981. "Hydrogenase." <i>Biochim. Biophys. Acta</i> . 594:105-176.
	X	Adams. (Ed). "Enzymes and proteins from hyperthermophilic microorganisms; Advances in protein chemistry." Vol. 48. <i>Academic Press</i> , San Diego, CA. 1996. Title Page, Table of Contents.
	X	Albracht et al. "Mechanism of Hydrogen Activation," 2003. (Eds), <i>Biochemistry and Physiology of Anaerobic Bacteria</i> . Springer-Verlag, New York, 2003. Pp. 20-34 and Table of Contents.
	X	Alper. April 2003. "Putting an Exotic Enzyme together." <i>ASM News</i> , 69:170-171. Available online [retrieved on August 16, 2010]. Retrieved from the Internet at: < <a href="http://forms.asm.org/microbe/index.asp?bid=14506">http://forms.asm.org/microbe/index.asp?bid=14506</a> >; 2 pgs.

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	X	Andrews et al. 1997. "A 12-cistron <i>Escherichia coli</i> operon (hyf) encoding a putative proton-translocating formate hydrogenlyase system." <i>Microbiology</i> . 143:3633-3647.
	X	Black et al. 1994. "Sequences and characterization of <i>hupU</i> and <i>hupV</i> genes of <i>Bradyrhizobium japonicum</i> encoding a possible nickel-sensing complex involved in hydrogenase expression. <i>J. Bacteriol.</i> 176:7102-7108.
	X	Blaser. " <i>Helicobacter pylori</i> and gastric diseases." Clinical Review. <i>BMJ</i> . 1998. 316:1507-1510.
	X	Bock et al., "Fermentation," Chapter 18 in <i>Escherichia coli and Salmonella typhimurium; Vo. 1</i> , ASM Press, Washington, D.C. 2002; F.C. Neidhardt et al. (Eds). Available online at: < <a href="http://www.ecosal.org/pdf/ecosal-chapter-18.pdf">http://www.ecosal.org/pdf/ecosal-chapter-18.pdf</a> >
	X	Bond et al. 1975. "Investigation of small bowel transit time in man utilizing pulmonary hydrogen (H <sub>2</sub> ) measurements." <i>J. Lab. Clin. Med.</i> 85:546-555.
	X	Boyer et al. 2002. "Acquisition of Mn(II) in addition to Fe(II) is required for full virulence of <i>Salmonella enterica</i> serovar typhimurium". <i>Infect. Immun.</i> 70:6032-6042.
	X	Brown et al. 1987. "Adaption of hydrogen analysis to measure stomach to caecum transit time in the rat." <i>Gut</i> . 28:849-854.
	X	Casalot et al. 2001. "Maturation of the [NiFe] hydrogenases." Review. <i>Trends in Microbiology</i> . 9(5):228-237.
	X	Cummings. "Fermentation in the human large intestine: evidence and implication for health." 1983. <i>Lancet I</i> 1206:1209.
	X	Datsenko et al. 2000. "One-step inactivation of chromosomal genes in <i>Escherichia coli</i> K-12 using PCR products." <i>Proc. Natl. Acad. Sci. USA</i> . 97(12):6640-6645.
	X	de Bruyn et al. 2000. Best Practice. Clinical Evidence. "Infectious Disease: Diarrhea." 172:409-412.
	X	Doig et al. 1999. " <i>Helicobacter pylori</i> physiology predicted from genomic comparison of two strains." <i>Microbiol. &amp; Mole. Biol. Rev.</i> 63(3):657-707.

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	X	Ellermeier et al. 2002. "Construction of targeted single copy <i>lac</i> fusions using lambda Red and FLP-mediated site-specific recombination in bacteria." <i>Gene</i> 290:153-161.
	X	Ferber et al. 1993. "Hydrogen-ubiquinone oxidoreductase activity by the <i>Bradyrhizobium japonicum</i> membrane bound hydrogenase." <i>FEMS Microbiol. Lett.</i> 110:257-264.
	X	Ferber et al. 1995. " <i>Bradyrhizobium japonicum</i> hydrogen-ubiquinone oxidoreductase activity: quinone specificity, inhibition by quinone analogs, and evidence for separate sites of electron acceptor reactivity." <i>BBA</i> 1229:334-346.
	X	Florin. 1997. "Alkyl halides, super hydrogen production and the pathogenesis of pneumatosis cystoides coli." <i>Gut</i> . 41:778-784.
	X	Fox. "The non- <i>H. pylori</i> helicobacters: their expanding role in gastrointestinal and systemic diseases." 2002. <i>Gut</i> . 50:273-283.
	X	Friedrich et al. 1993. "Molecular biology of hydrogen utilization in aerobic chemolithotrophs." <i>Annu. Rev. Microbiol.</i> 47:351-383.
	X	Gunn et al. 2000. "Genetic and functional analysis of a PmrA-PmrB-regulated locus necessary for lipopolysaccharide modification, antimicrobial peptide resistance, and oral virulence of <i>Salmonella enterica</i> serovar typhimurium." <i>Infect. Immun.</i> 68(11):6139-6146.
	X	Hube et al. "Network of hydrogenase maturation in <i>Escherichia coli</i> : role of accessory proteins HypA and HybF." 2002. <i>J. Bacteriol.</i> 184(14):3879-3885.
	X	Jamieson et al. 1985. "Effects of anaerobic regulatory mutations and catabolite repression on regulation of hydrogen metabolism and hydrogenase isoenzyme composition in <i>Salmonella typhimurium</i> ". <i>J. Bacteriol.</i> 168(1):405-411.
	X	Jones. 1980. "The role of the membrane-bound hydrogenase in the energy-conserving oxidation of molecular hydrogen by <i>Escherichia coli</i> ." <i>Biochem. J.</i> 188:345-350.

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	X	Keefe et al. 1993. "Purification and characterization of an O <sub>2</sub> -utilizing cytochrome-c oxidase complex from <i>Bradyrhizobium japonicum</i> ." <i>Biochim. Biophys. Acta</i> . 1183:91-104.
	X	Kelly et al. 2001. " <i>Helicobacter pylori</i> , physiology and genetics, ASM Press, Washington DC. Title Page, Copyright Page, Table of Contents, and Chapter 10, pp.113-124.
	X	Kolonay et al. 1994. "Purification and characterization of the cytochrome bd complex from <i>Azotobacter vinelandii</i> : Comparison to the complex from <i>Escherichia coli</i> ." <i>J. Bacteriol.</i> 176(13):4177-4181.
	X	Laurinavichene et al. 2002. "Effect of redox potential on activity of hydrogenase 1 and hydrogenase 2 in <i>Escherichia coli</i> ." <i>Arch. Microbiol.</i> 178:437-442.
	X	Lemke et al. "Cross-epithelial hydrogen transfer from the midgut compartment drives methanogenesis in the hindgut of cockroaches." <i>AEM</i> . 67(10):4657-4661. 2001.
	X	Lifschitz et al. "Carbohydrate digestion in humans from a $\beta$ -glucan-enriched barley is reduced." 2002. Research Communication. <i>Human Nutrition and Metabolism, J. Nutr.</i> Pgs.2593-2596.
	X	Maier et al. 1985. "Hydrogen uptake negative mutants of <i>Rhizobium</i> and their use in the isolation of <i>hup</i> genes." <i>Methods Enzymol.</i> 118:528-534 (and references therein).
	X	Maier et al. 1988. "Hydrogen-mediated mannose uptake in <i>Azotobacter vinelandii</i> ." <i>J. Bacteriol.</i> 170(4):1986-1989.
	X	Maier et al. 1996. "Hydrogen uptake hydrogenase in <i>Helicobacter pylori</i> ." <i>FEMS Microbiology Letters</i> . 141:71-76.
	X	Maier et al. 2002. "Genes and proteins involved in nickel dependent hydrogenase expression." In: <i>Physiology and Biochemistry of Anaerobic Bacteria</i> . Springer-Verlag, New York. Title Page, Table of Contents, and Chapter 16 (pgs. 67-83).
	X	Maier et al., 2003 "Availability and Use of Molecular Hydrogen as an Energy Substrate for <i>Helicobacter</i> Species." <i>Microbes Infect.</i> 5:1159-1163.

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	X	Maier et al. 2003. "Hydrogen oxidizing capabilities of <i>Helicobacter hepaticus</i> and <i>in vivo</i> availability of the substrate." 2003. <i>J. Bacteriol.</i> 185(8):2680-2682.
	X	Maier et al. (Eds), Biochemistry and physiology of anaerobic bacteria. Springer-Verlag, New York, 2003. Title Page, Copyright Page, Table of Contents, and Chapter 6, pgs 67-84.
	X	Maier et al., 2004. "Respiratory Hydrogen Use by <i>Salmonella enterica</i> Serovar Typhimurium Is Essential for Virulence," <i>Infection and Immunity.</i> 72(11):6294-6299.
	X	Maier et al. 2004. "Use of molecular hydrogen as an energy substrate by human pathogenic bacteria". Intl. Hydrogenases Conference 2004. Biochemical Society Transactions (2005) Volume 33, part 1. Pgs. 83-85
	X	McClelland et al. 2001. "Complete Genome Sequence of <i>Salmonella enterica</i> serovar typhimurium LT2." <i>Letters to Nature.</i> 413:852-856.
	X	McCrae et al. 1978. "Properties of the hydrogenase system in <i>Rhizobium japonicum</i> bacteroids." <i>Biochem. Biophys. Res. Commun.</i> 80(2):384-390.
	X	McGee et al. 1999. "Mechanisms of <i>Helicobacter pylori</i> infection: Bacterial Factors." Pp. 155-180. In T.U. Westblom, S.J. Czinn, and J.G. Nedrud (eds), Current Topics in Microbiology and Immunology. Gastrointestinal Disease and <i>Helicobacter pylori</i> : Pathophysiology, Diagnosis and Treatment. Springer Verlag, Berlin.
	X	Merberg et al. "Regulation of Hydrogenase in <i>Rhizobium japonicum</i> : Analysis of Mutants in Regulation by Carbon Substrates and Oxygen." 1986. <i>Bacteriol.</i> 156(3):1236-1242.
	X	Miller et al. 1996. "Pathways of acetate, propionate, and butyrate formation by the human fecal microbial flora." <i>AEM</i> , 62(5):1589-1592.
	X	Mutaftschiev et al. 1983. "Hydrogen oxidation activity in membranes from <i>Rhizobium japonicum</i> ." <i>Biochim. Biophys. Acta.</i> 722:372-380.
	X	Noether. 1971. "Introduction to Statistics: a Fresh Approach." Houghton Mifflin, Boston. Title Page, Table of Contents, and Chapter 14 (pgs. 130-142).

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	X	Olczak et al. 2002. "Oxidative Stress Resistance Mutants of <i>Helicobacter pylori</i> ." <i>J. Bacteriol.</i> 184(12):3186-3193.
	X	Oleson et al. 1997. "Maldigestion and colonic fermentation of wheat bread in humans and the influence of dietary fat." <i>Am. J. Clin. Nutr.</i> 66:62-66.
	X	Olson et al. 1997. "The HypB protein from <i>Bradyrhizobium japonicum</i> can store nickel and is required for the nickel-dependent transcriptional regulation of hydrogenase." <i>Mol. Microbiol.</i> 24(1):119-128.
	X	Olson et al. 2002. "Molecular hydrogen as an energy source for <i>Helicobacter pylori</i> ", <i>Science</i> . 298:1788-1790.
	X	Pihl et al. 1992. "Hydrogen-oxidizing electron transport components in the hyperthermophilic archaebacterium <i>Pyrodictum brockii</i> ." <i>J. Bacteriol.</i> 174(1):137-143.
	X	Reissmann et al. 2003. "Taming of a poison: biosynthesis of the NiFe-hydrogenase cyanide ligands." <i>Science</i> . 299:1067-1070.
	X	Salyers et al. 2002. Bacterial Pathogenesis: A molecular approach." <i>ASM Press</i> , Washington, DC. Title Page, Copyright Page, Table of Contents. 10 pgs.
	X	Santos et al. 2001. "Animal models of <i>Salmonella</i> infections: enteritis versus typhoid fever". <i>Micro. Infect.</i> 3:1335-1344.
	X	Sawers et al. 1985. "Differential Expression of Hydrogenase Isoenzymes in <i>Escherichia coli</i> K-12: Evidence for a Third Isoenzyme." <i>J. Bacteriol.</i> 164(3):1324-1331.
	X	Smith et al. 2000. "Characteristics of the aerobic respiratory chains of the microaerophiles <i>Campylobacter jejuni</i> and <i>Helicobacter pylori</i> ." <i>Arch Microbiol.</i> 174:1-10.
	X	Stults et al. 1984. "Nickel is a component of hydrogenase in <i>Rhizobium japonicum</i> ." <i>J. Bacteriol.</i> 159(1):153-158.
	X	Solnick et al. 2001. "Emergence of diverse <i>Helicobacter</i> species in the pathogenesis of gastric and enteropercutaneous diseases." <i>Clin. Microbiol. Rev.</i> 14(1):59-97.

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	X	Tamayo et al. 2002. "Identification and Genetic Characterization of PmrA-Regulated Genes and Genes Involved in Polymyxin B Resistance in <i>Salmonella enterica</i> Serovar Typhimurium." <i>Infect. Immun.</i> 70(60):6770-6678.
	X	Tharanathan. "Food-derived carbohydrates-structural complexity and functional diversity." 2002. <i>Crit. Rev. Biotechnol.</i> 22(1):65-84.
	X	Touati et al. 2003. "Chronic <i>Helicobacter pylori</i> infections induce gastric mutations in mice." <i>Gastroenterology</i> 124. 1408-1419.
	X	Vignais et al. 2001. "Classification and phylogeny of hydrogenases." <i>FEMS Microbiol. Rev.</i> 25:455-501.
	X	Wang et al. 1991. "Construction of versatile low-copy-number vectors for cloning, sequencing and gene expression in <i>Escherichia coli</i> ." <i>Gene</i> 100:195-199.
	X	Wang. "Amperometric Hydrogen Electrode." <i>Methods. Enzymol.</i> 69:409-413.
	X	Wolin et al. 1994. Acetogenesis from CO <sub>2</sub> in the Human Colonic Ecosystem, in Acetogenesis, Drake, HL, Ed. Chapman & Hall, New York, Title Page, Table of Contents, and Chapter 11 (pgs. 365-385).
	X	Wong et al. 1984. "Hydrogen-oxidizing electron transport components in nitrogen-fixing <i>Azotobacter vinelandii</i> ." <i>J. Bacteriol.</i> 159(1):348-352.
	X	Zhang et al. 2003. "Molecular pathogenesis of <i>Salmonella enterica</i> serotype typhimurium-induced diarrhea," <i>Infect. Immun.</i> 71(1):1-12.

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